

REMARKS

Claims 21-37 were pending prior to this amendment. Claims 1-20 had been previously canceled. Claim 21, the first independent claim, has been herein amended. Claim 23 has also been herein amended, to be made consistent with the amended Claim 21. Claim 26 has been herein canceled. Claim 38 has been added. Applicants respectfully submit that no new matter has been added. Accordingly, Claims 21-25 and 26-38 are at issue.

The present invention is drawn to a system and method for controlling a device for setting a material placed on a textile. Referring to exemplary Claim 21, the method includes the step of receiving a power intensity value, and initiating a counter. The counter is then incremented *by the power intensity value*. In other words, the counter assumes a new value, which is the sum of the previous value of the counter and the power intensity value. That feature of the present invention allows the counter to be "stepped" in incremental values according to a variable amount; i.e., the power intensity value. When the power intensity value is greater, the counter will therefore be "stepped" to higher values more quickly. When the power intensity value is lesser, the counter will therefore be "stepped" to higher values more slowly.

The method next includes the step of determining whether the counter is greater than a base resolution which, like the power intensity value, is another variable of the present system. Lastly, the method includes the step of transmitting a power intensity output signal (i.e., a signal to energize) the device. That last step occurs based on a determination that the counter exceeds the base resolution value. All of the independent claims of the present application (Claims 21, 28 and 37) include the limitation of *incrementing the counter by the power intensity value*.

As will be demonstrated herein, the prior art cited by the Examiner in the March 15, 2006 Office Action does not disclose, anticipate or suggest the elements of the claims of the present application.

Remarks Concerning Rejections Under 35 U.S.C. § 101

On page 2 of the March 15, 2006 Office Action, the Examiner rejected Claims 21-22 and 24-25 as being unpatentable under § 101 because they "contain non-functional descriptive material". In light of the amendments made herein to Claim 21, Applicants respectfully traverse that rejection.

Claim 21, as amended, includes a first limitation of "receiving a power intensity value from a power intensity selector". The next limitation is "initiating a counter stored in a memory." Another limitation in that claim is "transmitting a... signal to the device." Applicants respectfully submit that those limitations are functional, in that they call for a particular performance or operation. Receiving a value from a selector, and transmitting a signal to a device, are functional steps that are not merely descriptive. Applicants therefore respectfully submit that Claim 21 satisfies the requirements of § 101, and request the rejection be withdrawn.

Claims 22 and 24-25 are dependent on Claim 21, and include all of its limitations. Thus, Applicants submit that Claims 22 and 24-25 satisfy the requirements of § 101 for the same reasons, and ask that the rejection be withdrawn for those claims as well.

Remarks Concerning Rejections Under 35 U.S.C. § 112

On page 3 of the March 15, 2006 Office Action, the Examiner rejected Claims 21-27 under § 112 ¶ 1, because it was believed the specification, "while being enabling for a device operable [sic] connected to a programmable logic controller, does not reasonably provide for a method for controlling a device." Applicants respectfully understood that to be the opinion of the Examiner that the present application, as filed, does not enable the controlling of a device for setting a material on a textile, as the claims require. In light of the amendments made herein to Claim 21, Applicants respectfully traverse that rejection.

Claim 21 has been amended to clarify in the final step of the method, based on a determination that the counter exceeds the base resolution value, a power intensity output signal is transmitted to the device for setting a material placed on a textile. As described in the written description portion of the application, "The generated power intensity output signal includes an

'ON' state and an 'OFF' state" (p. 6, ll. 18-19). Elsewhere, the written description provides that the power intensity signal controls "the amount of power supplied to a setting device 20, e.g., heater, flash curing unit, dryer, etc." (p. 6, ll. 5-7). Thus, the power intensity output signal is essentially a signal to energize the heating units of the device, thereby placing the device in a state to place a material on a textile. Applicants submit that Claim 21 is therefore enabling for the embodiment of controlling such a device, and thus respectfully request that the rejection be withdrawn.

Claims 22-25 and 27 are dependent on Claim 21, and include its limitations. Claims 22-25 and 27 are thus enabling and satisfy the requirements of § 112 ¶ 1 for the same reasons. Applicants therefore respectfully request that the rejection of those dependent claims be withdrawn as well.

On page 4 of the March 15, 2006 Office Action, the Examiner rejected Claims 21-27 as failing to comply with the requirements of § 112 ¶ 2. Particularly, the Examiner opined that those claims are indefinite because they "involve a method for controlling a device without preempting other uses of a mathematical principle such that the invention could be infringed by others using the same claimed mathematical principle." In light of the amendments made to Claim 21, Applicants respectfully traverse that rejection.

Claim 21 has been herein amended to clarify that the final step of the present method is to transmit a power intensity output signal to a device for setting a material on a textile. Claim 21 has been further amended to clarify that the power intensity value is received from a power intensity selector, and further amended to clarify that the counter is stored in a memory. Applicants submit that those limitations are well beyond being mere mathematical principle. Infringement of Claim 21 is therefore not possible by the practice of the mathematical principle alone, and the Examiner's objection to Claim 21 has thereby been rendered moot by the present amendments. Applicants respectfully submit that Claim 21, as amended, satisfies the requirements of § 112 ¶ 2, and request that the rejection be withdrawn.

Claims 22-25 and 27 are dependent on Claim 21, and include its limitations. Claims 22-25 and 27 are thus definite and satisfy the requirements of § 112 ¶ 2 for the same reasons. Applicants therefore respectfully request that the rejection of those dependent claims be withdrawn as well.

On page 4 of the March 15, 2006 Office Action, the Examiner rejected Claim 24 for an additional reason, namely that it "contains the recitation 'the device' which is considered indefinite since no earlier devices are claimed in its line of dependency." Applicants respectfully traverse that rejection as well.

The limitation "the device" in Claim 24 is made in reference to "a device for setting a material place on a textile," which is in the preamble of Claim 21. Applicants therefore respectfully submit that Claim 24 is definite and satisfies the requirements of § 112 ¶ 2. Applicants thus respectfully request that the rejection be withdrawn.

Remarks Concerning Rejections Under 35 U.S.C. § 102

U.S. Patent No. 4,385,452 to Deschaaf et al. ("Deschaaf")

On page 5 of the March 15, 2006 Office Action, the Examiner rejected Claims 21-26 under § 102(b) as being anticipated by Deschaff. Applicants respectfully traverse that rejection.

Deschaaf is directed to a fabric treating apparatus such as a domestic clothes dryer. A conductivity sensor senses the moisture content of the fabric, and a sensing circuit electrically connected to the sensor generates a voltage level proportional to the moisture condition sensed. A microcomputer reads the voltage level at spaced intervals and generates a valid wet signal whenever a given consecutive number of readings indicated a wet condition of the fabric. A counter within the microcomputer counts pulses from a source of timing signals and is repeatedly terminated and restarted whenever a valid wet signal is generated.

However, Deschaaf does not disclose three of the limitations of Claim 21: incrementing the counter by the power intensity signal, determining whether the counter exceeds the base resolution, and transmitting the power intensity output signal if the counter exceeds the base resolution.

Contrarily, Deschaaf discloses a first counter as a "seconds counter" that keeps track of the total run time of the Deschaaf system (col. 5, ll. 17-20), and a second counter to determine if the clothes load has reached a selected level of dryness (col. 5, ll. 20-22). The second works by determining the amount of time passed since a wet signal was not received; if the time exceeds a threshold duration, the Deschaaf system determines the material to be dry (col. 6, ll. 45-64).

Thus, both of the Deschaaf counters are used to track the passage of time. More particularly, neither of the counters is incremented by the power intensity value.

The present invention provides a method for keeping power intensity output proportional to a selected power intensity value. The present invention accomplished that proportionality, in part, by *incrementing the counter by the power intensity value*. Deschaaf discloses two counters, but neither counter is incremented in such a way. Claim 21 requires the step of incrementing the counter by the power intensity value, and Deschaaf does not disclose that limitation. Applicants therefore respectfully submit that Claim 21 is patentable over Deschaaf, and request that the rejection be withdrawn.

Claims 22-25 are dependent on Claim 21, and include its limitations. Claims 22-25 are therefore patentable over Deschaaf for the same reasons. Applicants thus respectfully request that the rejection of those dependent claims be withdrawn as well.

Deschaaf also fails to disclose other limitations of Claim 21, namely: determining whether the counter exceeds the base resolution, and transmitting the power intensity output signal if the counter exceeds the base resolution. Deschaaf does not disclose a base resolution or any equivalent. In Deschaaf, the counter is compared to a predetermined time interval, but that interval is not a base resolution value. As understood by the present invention, a base resolution is a base power intensity value which is proportional to the power intensity setting; it is not a time interval. Thus, Deschaaf does not disclose a base resolution, does not disclose comparing the counter to the base resolution and does not disclose transmitting a power intensity signal based on a comparison of the counter to the base resolution. Deschaaf therefore does not disclose four elements of Claim 21. For that additional reason, Applicants respectfully submit that Claims 21-25 are patentable over Deschaaf, and respectfully request that the rejection be withdrawn.

U.S. Patent No. 5,852,881 to Kuroda et al. ("Kuroda")

On page 5 of the March 15, 2006 Office Action, the Examiner rejected Claims 28-35 under § 102(b) as being anticipated by Kuroda. Applicants respectfully traverse that rejection.

Kuroda is directed to a clothes dryer that prevents the overheating of clothes. The Kuroda system operates by temporarily suspending power to the dryer's motor, during which

time the motor continues to rotate by inertia. During the inertial rotation, a counter counts the number of times the motor rotates. If the counter exceeds a predetermined value, the motor is stopped, because the exceeding of the predetermined value is indicative of a drive failure within the motor.

Like Deschaaf, Kuroda fails to disclose two elements of the present invention: the step of incrementing the counter by the power intensity value, and the step of comparing the counter to the base resolution. The present invention provides that a counter is initialized, and is then *incremented by the power intensity value*. Kuroda discloses a counter which is incremented once for every rotation of a motor (col. 8, ll. 7-12), but does *not* disclose a counter that is incremented by the power intensity setting. Ostensibly, Kuroda does disclose a power intensity selector (col. 6, ll. 45-47). However, Kuroda makes no disclosure regarding adding that selected value to the counter. Kuroda thus fails to teach the step of incrementing the counter by the power intensity value, which is a limitation of Claim 28 of the present application. Applicants therefore respectfully submit that Claim 28 is patentable over Kuroda, and request that the rejection thus be withdrawn.

Kuroda also fails to disclose the step of comparing the counter to the base resolution. The present invention provides that after the counter is incremented by the power intensity value, the counter is then compared to the base resolution. If the counter exceeds the base resolution, a power intensity output signal is then generated. In contrast, Kuroda discloses a counter which is compared *not* to a base resolution, but to predetermined number of rotations of a motor (col. 8, ll. 19-21). Kuroda therefore does not disclose the step of comparing the counter to the base resolution, nor does Kuroda disclose the step of generating a power intensity output signal based on the comparison. Both of those limitations are elements of Claim 28. For those two additional reasons, Applicants respectfully submit that Claim 28 is patentable over Kuroda, and respectfully request that the rejection be withdrawn.

Claims 29-35 are dependent on Claim 28, and include its limitations. Therefore, Applicants submit that Claims 29-35 are patentable over Kuroda for the same reasons, and request that the rejection of those claims be withdrawn as well.

Remarks Concerning Rejections Under 35 U.S.C. § 103

Deschaaf in view of U.S. Patent No. 5,117,562 to Dulay et al. ("Dulay")

On page 5 of the March 15, 2006 Office Action, the Examiner rejected Claim 27 under § 103(a) as being unpatentable over Deschaaf in view of Dulay. The Examiner acknowledged Deschaaf does not disclose "one of a plurality of lamps", which is an element of Claim 27. The Examiner opined, however, that Dulay makes such a disclosure. Applicants respectfully traverse that rejection.

As noted *supra*, Deschaaf fails to disclose three of the elements of Claim 27, namely, Deschaaf does not teach the steps of (a) incrementing the counter by the power intensity value, (b) comparing the counter to the base resolution and (c) generating a power intensity output signal based on the comparison of the counter to the base resolution.

Dulay fails to cure the deficiencies of Deschaaf. Dulay makes no disclosure regarding a counter, or a base resolution, incrementing the counter by the power intensity setting or comparing the counter to the base resolution. Neither Deschaaf nor Dulay disclose those elements, either alone in combination, and therefore Applicants respectfully submit that Claim 27 is patentable over the combination of those references.

Moreover, while Dulay does disclose a plurality of lamps, Dulay does not disclose the *selection* of one of those plurality of lamps, which is also an element of Claim 27. For that additional reason, Applicants respectfully submit that Claim 27 is patentable over the combination of Deschaaf and Dulay, and respectfully request that the rejection be withdrawn.

Kuroda in view of Dulay

On page 6 of the March 15, 2006 Office Action, the Examiner rejected Claim 36 under § 103(a) as being unpatentable over Kuroda in view of Dulay. The Examiner acknowledged that Kuroda fails to disclose "at least one of a plurality of lamps", but opined that Dulay makes such a disclosure. Applicants respectfully traverse that rejection.

As noted *supra*, Kuroda fails to disclose three of the elements of Claim 36. Namely, Deschaaf does not teach the steps of (a) incrementing the counter by the power intensity value,

(b) comparing the counter to the base resolution and (c) generating a power intensity output signal based on the comparison of the counter to the base resolution.

Dulay fails to cure the deficiencies of Kuroda. Dulay makes no disclosure regarding a counter, or a base resolution, incrementing the counter by the power intensity setting or comparing the counter to the base resolution. Neither Kuroda nor Dulay disclose those elements, either alone in combination, and therefore Applicants respectfully submit that Claim 36 is patentable over the combination of those references.

Moreover, while Dulay does disclose a plurality of lamps, Dulay does not disclose the *selection* of one of those plurality of lamps, which is also an element of Claim 36. For that additional reason, Applicants respectfully submit that Claim 36 is patentable over the combination of Kuroda and Dulay, and respectfully request that the rejection be withdrawn.

U.S. Patent No. 6,751,888 to Lueckenbach ("Lueckenbach") in view of Dulay

On page 6 of the March 15, 2006 Office Action, the Examiner rejected Claim 37 under § 103(a) as being unpatentable over Lueckenbach in view of Dulay. Applicants respectfully traverse that rejection.

Lueckenbach is directed to a control system for a clothes dryer. A temperature sensor and a thermostat are used to regulate the heating element of the dryer. A microcomputer is used to correct differences between the temperature of the thermostat and the temperature sensed by the temperature sensor. The microcomputer thus operates "to maintain a tighter tolerance band about a target temperature than does [the] thermostat" (col. 4, ll. 44-46).

However, Lueckenbach fails to disclose three of the elements of Claim 37. First, while Kuroda does disclose a counter (col. 6, ll. 7-10), Lueckenbach does not teach that the counter is incremented by the power intensity value. The Lueckenbach counter merely counts the number of times a heater is activated (col. 6, ll. 7-10), but the counter is not incremented by the power intensity value. Second, Lueckenbach does not disclose the step of comparing the counter to the base resolution. The Examiner equated the thermostat of Lueckenbach with the base resolution value of the present invention. Applicants respectfully submit that those two elements are not analogous. But even assuming, *arguendo*, that Lueckenbach does disclose a base resolution, Lueckenbach still fails to disclose the step of comparing the counter to that base resolution.

Thus, Lueckenbach also fails to disclose a third element of Claim 37: generating a power intensity output signal based on the comparison of the counter to the base resolution.

Dulay fails to cure the deficiencies of Lueckenbach. As noted *supra*, Dulay fails to disclose those same elements of Claim 37, the steps of (a) incrementing the counter by the power intensity value, (b) comparing the counter to the base resolution and (c) generating a power intensity output signal based on the comparison of the counter to the base resolution. Neither Lueckenbach nor Dulay disclose those elements, either alone in combination, and therefore Applicants respectfully submit that Claim 37 is patentable over the combination of those references.

Moreover, while Dulay does disclose a plurality of lamps, Dulay does not disclose the *selection* of one of those plurality of lamps, which is also an element of Claim 37. For that additional reason, Applicants respectfully submit that Claim 37 is patentable over the combination of Lueckenbach and Dulay, and respectfully request that the rejection be withdrawn.

CONCLUSION

In light of the amendments made herein and for the foregoing reasons, Applicants respectfully submit that Claims 21-25 and 26-38 are in condition for allowance. Applicants respectfully request that the Examiner withdraw the rejections and allow the claims to issue. The Examiner is invited to contact the undersigned Attorney to discuss and expedite the examination of the present application. The Commissioner is hereby authorized to charge Deposit Account No. 23-0280 in connection with any additional and necessary fees associated herewith.

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Reply to Office Action of March 15, 2006

Respectfully submitted,

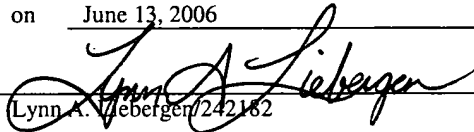
Dated: June 13, 2006

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CERTIFICATE OF MAILING (37 C.F.R. § 1.8a)

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